

SPAU 328

Principles of Evaluation, Diagnosis,
and Report Writing in ComD

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Assessment Procedures Common to Most Communication Disorders

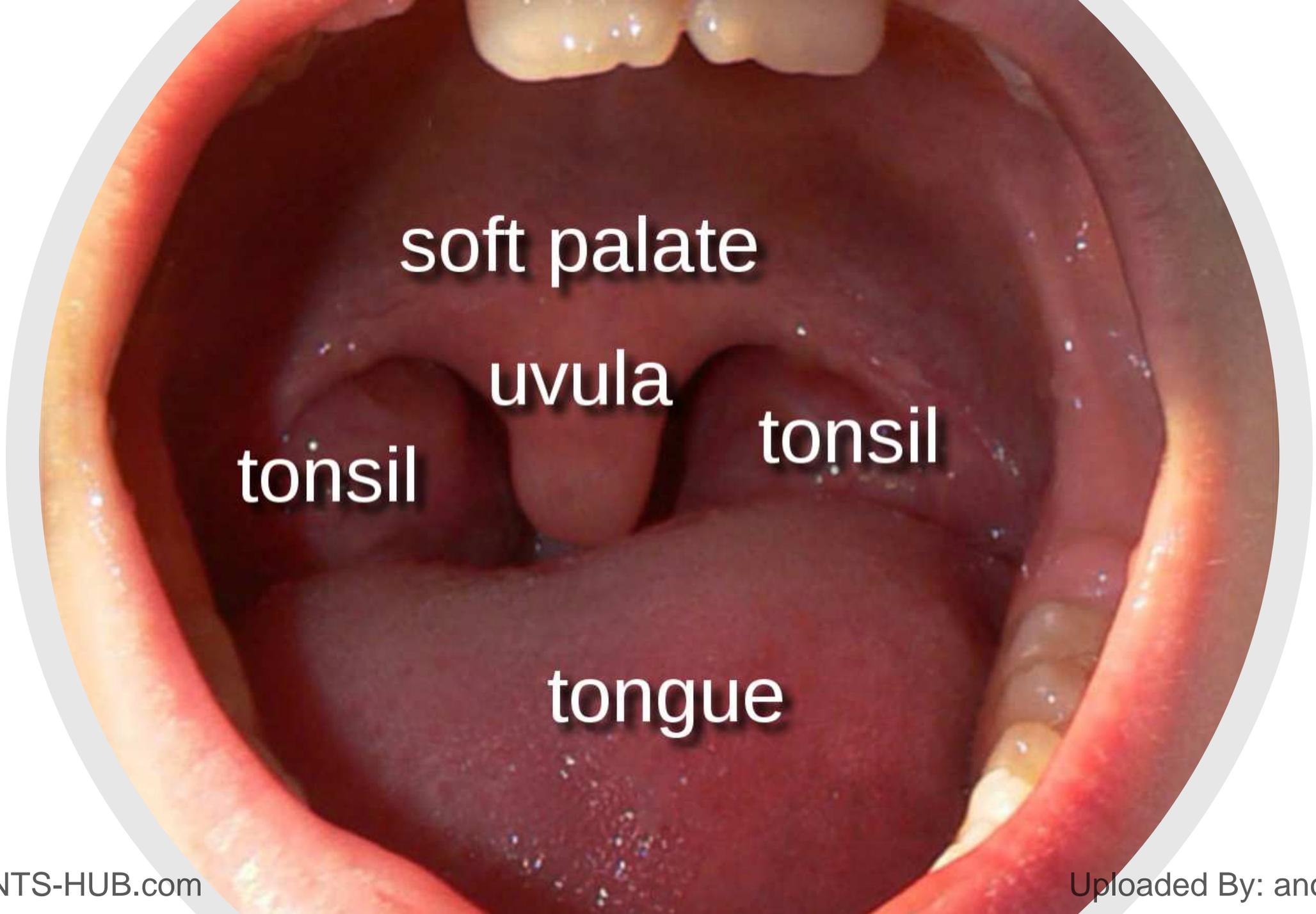
Chapter 5

Orofacial Examination

Its purpose is to identify or rule out **structural or functional factors** that relate to a communicative disorder.

At minimum, the clinician will need

- Disposable gloves
- A stopwatch
- Flashlight
- Tongue depressor
- A bite block
- Cotton gauze
- An applicator stick
- A toothette
- Mirror



*Abnormal
color of the
tongue,
palate, or
pharynx*

- A **grayish color** is normally associated with muscular paresis or paralysis.
- A **bluish tint** may result from excessive vascularity or bleeding.
- A **whitish color** of the palates can indicate a submucosal cleft.
- An **abnormally dark** or a translucent color on the hard palate may be an indication of a palatal fistula or a cleft.
- **Dark spots** may indicate oral cancer.

Abnormal color of the tongue, palate, or pharynx



Unilateral tongue weakness



Sub-mucousal cleft

*Abnormal
height or
width of the
palatal arch*

- If the arch is abnormally wide/ high or /narrow/low this will affect the production of speech sounds

*Asymmetry
of the face or
palate*

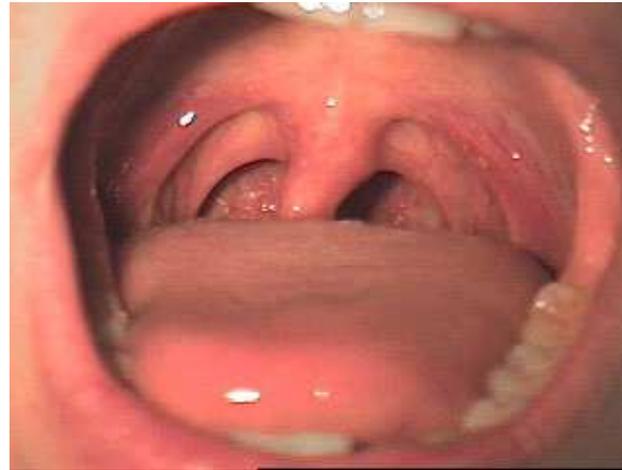
- This is often associated with neurological impairment or muscle weakness



patient with Bell's Palsy affecting his right side

*Deviation of
the tongue
or uvula to
the left or
right*

- This may indicate neurological involvement. If so, the tongue may deviate to the weaker side because the weaker half of the tongue is unable to match the extension of the stronger half



Uvulae deviated to the right

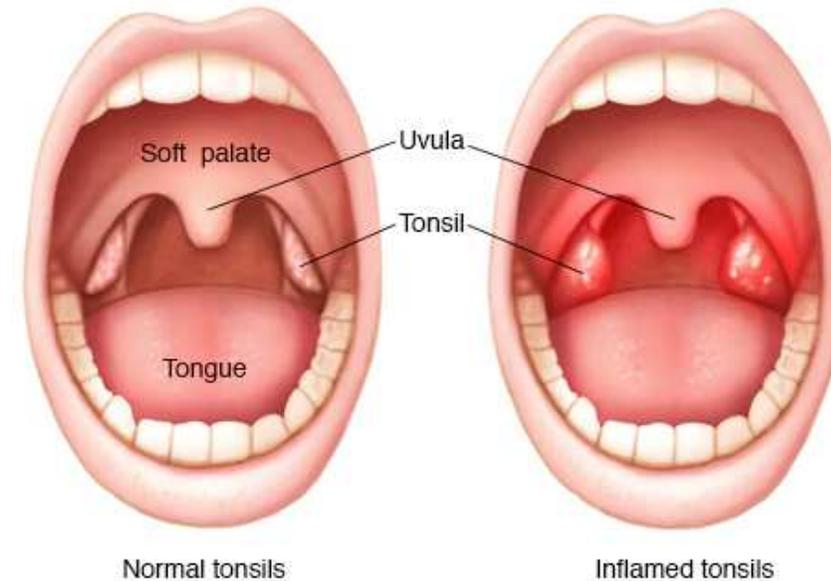


Tongue deviated to the right

Aphasia? Dysarthria? Both?

Enlarged tonsils

- In some cases enlarged tonsils interfere with general health, normal resonance, and hearing acuity.
- A forward carriage of the tongue may also persist, resulting in abnormal articulation.



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Missing teeth

- Depending on which teeth are missing, articulation may be impaired.

Mouth breathing

The client may have a restricted passageway to the nasal cavity. How does this affect articulation?

Mouth breathing may also be associated with anterior posturing of the tongue at rest.

Poor intraoral pressure

- Poor maintenance of air in the cheeks is a sign of labial weakness.
- It is also a sign of velopharyngeal insufficiency (a structural problem) or velopharyngeal incompetence (a functional problem).

Short lingual frenum

- This may result in an articulation disorder. How?
- What do we do about it?



*Weak,
asymmetrical,
or absent gag
reflex*

This may indicate **muscular weakness** in the velopharyngeal area. Neurological impairment may be present.

*Weakness of
the lips,
tongue, or
jaw*

This is common among clients with neurological impairments. Aphasia, dysarthria, or both, may be present.

Let's
watch:

- <https://www.youtube.com/watch?v=Z1XyUlaUhfg>

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Assessing Diadochokinetic Syllable Rate (DDK) (Alternating or sequential motion rate)

- DDK rate is measured in one of two ways:
 1. Counting the syllables produced within a predetermined number of seconds.
 2. measuring the seconds it takes to produce a predetermined number of syllables.

Assessing Diadochokinetic Syllable Rate (DDK)

Instruct	Instruct the client to repeat the target syllable (e.g., /pø/, /tø/, /kø/) as quickly as possible until told to stop.
Model	Model the sequence and allow the client to practice to be sure the instruction is understood.
Go and start	Say go and start the stopwatch.
Stop and stop	Say stop and stop the stopwatch after 20 repetitions.
Redo	Redo the sequence if the client stops or slows down intentionally before the task is completed.
Evaluate	After assessing each syllable individually, evaluate the client for 10 repetitions of /pøtøkø/.
Record	Record findings on the worksheet.

Let's
watch:

- <https://www.youtube.com/watch?v=kegQORv9CJ4>

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Form 5-2.

Diadochokinetic Syllable Rates Worksheet

Name: _____ Age: _____ Date: _____

Examiner's Name: _____

Instructions: Time the number of seconds it takes your client to complete each task the prescribed number of times. The average number of seconds for children from 6 to 13 years of age is reported on the right-hand side of the table.

The standard deviation (SD) from the mean is also represented. Subtract the SD from the norm to determine each SD interval. For example, using the /pʌ/ norm with a 6-year-old, 3.8 (4.8-1.0) is one SD, 2.8 (4.8-2.0) is two SDs, 2.3 (4.8-2.5) is two-and-a-half SDs, etc. Therefore, a 6-year-old child who needed 2.6 seconds to complete the /pʌ/ sequence would be two SDs below the mean.

			<i>Norms in seconds for diadochokinetic syllable rates</i>							
			Age							
Task	Repetitions	Seconds	6	7	8	9	10	11	12	13
pʌ	20	_____	4.8	4.8	4.2	4.0	3.7	3.6	3.4	3.3
tʌ	20	_____	4.9	4.9	4.4	4.1	3.8	3.6	3.5	3.3
kʌ	20	_____	5.5	5.3	4.8	4.6	4.3	4.0	3.9	3.7
		Standard Deviation:	1.0	1.0	0.7	0.7	0.6	0.6	0.6	0.6
patəkə	10	_____	10.3	10.0	8.3	7.7	7.1	6.5	6.4	5.7
		Standard Deviation:	2.8	2.8	2.0	2.0	1.5	1.5	1.5	1.5

Comments:



Speech and Language Sampling

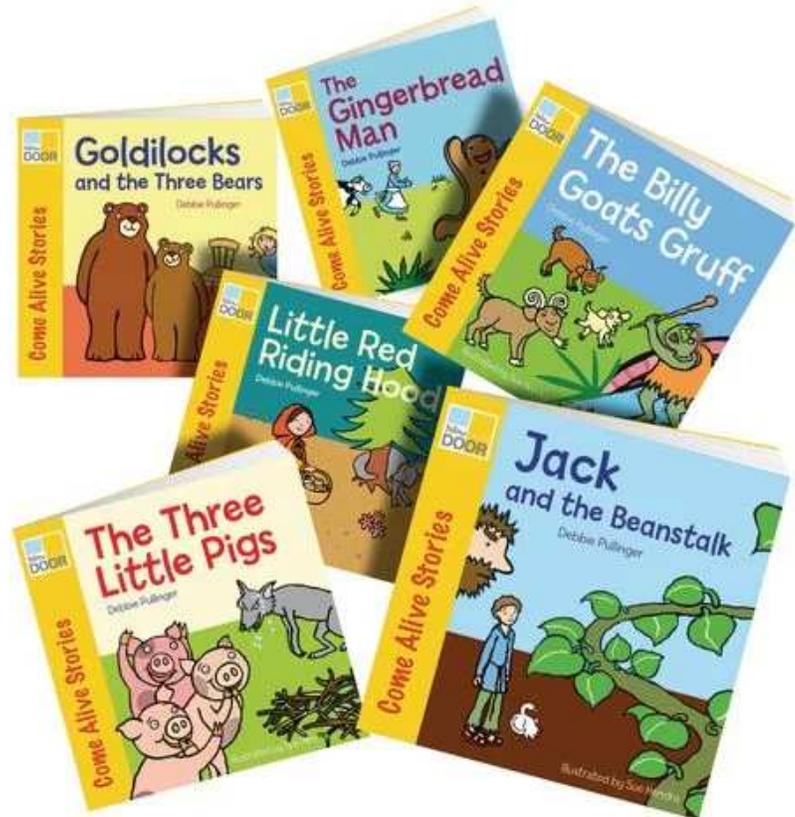
Speech samples are used for:

- Identifying sound errors from a speech sample
- Evaluating rate of speech
- Determining intelligibility
- Comparison of sound errors from an articulation test and connected speech
- Language sampling and analysis
- Determining the mean length of utterance
- Assessment of semantic skills
- Determining the type-token ratio
- Assessment of syntactic skills
- Assessment of morphologic skills
- Examining the voice
- Identifying dysarthria
- Identifying apraxia

Conversation Starters for Eliciting a Speech-Language Sample

- Sample stimulus questions and statements
- Pictures
- Narratives/ stories

Conversation Starters for Eliciting a Speech-Language Sample



Reading Passages

- Information obtained during oral reading is valuable because it allows the clinician to observe the client's articulation, voice, fluency, and reading abilities

Evaluating Rate of Speech

1

Time

- Time the sample (e.g., 20 seconds).

2

Count

- Count the number of words produced (e.g., 62 words).

3

Divide

- Divide the number of seconds in a minute (60) by the number of seconds in the sample (20 seconds in the example): $60/20 = 3$

4

Multiply

- Multiply the number of words in the sample (62 in the example) by the number in Step 3 (3 in the example): $62 * 3 = 186$. The word per minute rate is 186.

Determining Intelligibility

- Many factors that can negatively influence intelligibility. Give examples?
- When measuring intelligibility, clinicians are recommended to
 - Use a high-quality recording device.
 - Avoid stimulus items that tend to elicit play rather than talk
 - Use open-ended questions
 - Consider reporting intelligibility in ranges (e.g., 65–75%), particularly when intelligibility varies.
 - Compare intelligibility on word-by-word and utterance-by-utterance bases. For some clients, the results will be very similar. For others, they may be considerably different.

Syllable by Syllable Stimulus Phrases

- Syllable-by-syllable phrases are useful for assessing many disorders. The following are just a few examples of clinical questions that can be answered by using syllable-by-syllable phrases:
 - Can the hyponasal (denasal) client maintain appropriate nasal resonance across increasingly longer phrases containing nasal sounds?
 - Can the hypernasal client produce the nonnasal phrases without nasality?
 - What speech rate is optimal for the client to be able to articulate all sounds correctly in phrases of increasing length?
 - Are there specific syllable lengths at which the client's speech begins to deteriorate?
 - Are there specific syllable lengths at which the client's articulation becomes less intelligible?
 - Can fluency be maintained in increasingly longer phrases?
 - Can a desired voice quality (e.g., nonhoarse) be maintained in increasingly longer phrases?

Syllable by Syllable Stimulus Phrases

TABLE 5-2 Syllable-by-Syllable Stimulus Phrases

TWO-SYLLABLE PHRASES	
<i>With Nasals</i>	<i>Without Nasals</i>
at noon	Back up.
brown car	big boy
Come in.	blue sky
Down, please.	dog house
front door	hot dog
I'm fine.	Keep out.
in here	Pull hard.
my jam	Push it.
Show me.	red car
Thank you.	too slow

THREE-SYLLABLE PHRASES	
<i>With Nasals</i>	<i>Without Nasals</i>
Good morning.	apple pie
hot and cold	catch the bus
jumping rope	far to go
make it up	How are you?
moon and stars	Hurry up.
more and more	Laugh loudly.
Please call me.	Leave the house.
run and jump	red roses
shoes and socks	see the cat
yes or no	slept all day